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**NIKULINA Anni**

*Saint Petersburg Mining University, PhD, associate professor,  
Russia, St. Petersburg, 199106, 21 linia, 2;  
e-mail: Nikulina\_AYu@pers.spmi.ru*

**YAKOVLEVA Julia**

*Saint Petersburg Mining University, PhD, associate professor,  
Russia, St. Petersburg, 199106, 21 linia, 2;  
e-mail: yakovleva\_YuA@pers.spmi.ru*

**GAVRILOVA Arina**

*Saint Petersburg Mining University, student,  
Russia, St. Petersburg, 199106, 21 linia, 2;  
e-mail: gavrilova.arina@mail.ru*

**SHULEPOV Vladimir**

*Saint Petersburg Mining University, student,  
Russia, St. Petersburg, 199106, 21 linia, 2;  
e-mail: volyashulepov276@gmail.com*

## **FACTORS FOR MOBILIZING HUMAN RESOURCES TO WORK IN THE ARCTIC**

**Abstract.** *The work contains the study which identifies factors for mobilising human resources to work in the Arctic region of the Russian Federation. Currently, the Arctic is a very unpopular place of permanent residence due to its nature, climate, and geography. This is further confirmed by the statistics of the migration of the people in the constituent entities located beyond the Arctic Circle. Therefore, it is necessary to practice a comprehensive approach to the research of the existing and potential drivers to develop recommendations for the companies that are planning to or have operations in the Arctic and for relevant government authorities. The first part of the article focuses on the review of the current state guarantees and benefits to people working in the Extreme North and emphasises their low incentive potential. The second part of the article is a sociological study carried out by the students of the Mining University Economics Department. Its results are used as a basis to articulate key drivers that would make Arctic work appealing for young talents. They include a preferred salary level, social and cultural environment in the workplace and in the community life, a potential period young professionals are willing to move to the North, and their mobility level. The constituent entities of the Russian Federation in the Arctic are found to be currently capable of providing the drivers of choice. The research is the first stage in a proposed multi-disciplinary study carried out by young scientists and professionals from the St. Petersburg Mining University.*

**Keywords:** *Arctic, Far North, human resources, students, motivation.*

The Arctic Region of the Russian Federation has been the focus area for many government and public organisations and authorities in the recent decades. This interest is related to the start of the development of Arctic

hydrocarbon fields and geopolitical influence, as well as placement and expansion of military facilities and military forces there.

Higher activity in the region creates a demand for highly skilled specialists capable of living and working in the north [1, 2].

This work is an attempt to consider factors that impact the specialists' decisions to work in the Arctic Region in order to develop further recommendations for government authorities and employers that operate in the north.

The first part of the article addresses the environmental and climatic factors that have an adverse impact on human health, as well as existing methods the government can use to encourage people working in the polar region in order to offset such factors and attract potential workforce.

The second part of the article lists the results of polling of the students and graduates of the Mining University that shown what might motivate them to move to work in the Arctic Region.

**Part One.** A) Impact of the environmental and climatic factors in the Arctic Region on employee health

The Arctic Region has been developed over the last century. The industries that have been actively mobilising workforce are mining companies and related sectors. Severe environmental and climatic conditions in many parts of the Arctic Region have required close attention to the employees' physical and mental health. Experts in medicine, psychology, and labour economics have focused on the study of the influence of northern region environment, including the rotational system of work, on human health [3].

Conducted studies [4] show the impact of adverse working conditions in the north, such as climatic and geographical contrasts, desynchronising factors related to a change in photoperiodism and 24-hour shift work, contribute to a special "social and psychological climate" that determines the nature and changes of physical and autonomic physiological functions, including mental and emotional shifts. Employees experience changes in their identity, self-gratification, attitude to their work and human relations.

Yu. Mizun [5] believes that an important condition for successful employee adaptation to the Arctic conditions is a specific build type. The choice should be with "stayers", people who can withstand stress loads for a long time (for many years). "Stayers" are opposed to "sprinters" who can withstand larger loads but over a relatively short period of time.

B) Legislative incentives to work in the Arctic Region

Since an interest in the Arctic Region has intensified over the last two decades only, the regulations of the Russian Federation pertaining to the rights of employees in the Arctic area contain the term "regions of the Extreme North and equivalent areas".

Existing legally available benefits stipulated by the Labour Code of the Russian Federation (the LC RF) for the people employed in the Extreme North include a number of financial incentives an employer must provide [6, 7].

For instance, Article 115 of the LC RF stipulates the following additional paid leave: a total of 24 calendar days as an additional paid leave for people working in the Extreme North and 16 calendar days for people employed in equivalent areas.

Article 320 stipulates a 36-hour work week for women with their salary equal to that paid for a full work week. Any time worked by a woman extra to these stipulated 36 hours should be paid for at an overtime rate: one and a half of the regular rate for the first two hours and a double rate for any time above these first two hours.

Pursuant to Article 321, people working in the Extreme North are entitled to 24 calendar days as an additional paid leave and people employed in equivalent areas are entitled to 16 calendar days as an additional paid leave. Article 322 also allows complete or partial combination of annual paid leaves for two years.

The employees of companies located in the Extreme North and equivalent areas are entitled to compensation from their employer for their travel and carriage of their luggage to/from their vacation site in the Russian Federation once every two years (Article 325 of the LC RF). However the law guarantees a compensation of relocation expenses only to the employees of government-owned entities. Such employees are also entitled to the payment of their family's travel and carriage of their luggage and a compensation of a two-month base salary (Article 326).

As regards remuneration to the people working in the Arctic Region, Article 148 stipulates regional premium rates and perks. A regional premium rate in the Extreme North is 2, but the minimum monthly wage (MMW) in regions may amount to RUB 9,489 (from January, 2018), which makes the so called "northern wage" or "wage rise for arduous working conditions" an ineffective incentive for employees. A salary of RUB 19,578 in Murmansk is not attractive for the residents of St. Petersburg where MMW is RUB 18,978 in 2018 and an average salary approximates RUB 60, 0000.

In light of the foregoing, it can be deduced that legally stipulated guarantees for employees are inadequate to retain people in the North or mobilise potentially required workforce from other regions.

**Part Two. An opinion survey to identify factors that would be attractive for young talents and encourage them to move to the Arctic Region.** In order to develop recommendations for workforce mobilisation to the Arctic Region, a decision has been made to conduct an opinion survey to identify factors that would influence the decision to work in the north.

In accordance with the current opinion survey method, the following bullet points have been included.

1. Problem

One of the components of the Arctic economic potential is qualified workforce but the study of population flows has shown the region to be generally unattractive. Most young people leave polar cities since they cannot see growth perspectives [8-10]. One of the main causes of a disastrous situation with young talents is lack of decent working and living conditions.

Therefore, there is a need to study factors that would make employment in the Russian Arctic attractive for young skilled workforce and will in turn facilitate the development of a further social and economic mechanism of attracting them to the Arctic Region.

2. Research Target

Final-year students from engineering and economic departments (the Mining University case)

3. Research Subject

Preferred working and living conditions in the Russian Arctic Region for final-year students with a major in engineering or economics (the Mining University case)

4. Research Goal

Study of preferred working and living conditions in the Russian Arctic Region for students with a major in engineering or economics (the Mining University case)

5. Research Objectives:

- study social and economic preferences of students regarding working and living conditions in the Russian Arctic Region;
- review social and cultural expectations of students regarding working and living conditions in the Russian Arctic Region;
- draft recommendations to government authorities and private companies regarding the mobilisation of young talents to the Arctic Region.

The authors of the article have developed a questionnaire (Figure 1) and polled the students and graduates of the Mining University.

<p><b>Career opportunities in the Arctic region</b></p> <p>* <i>Necessarily</i></p> <p><b>Sex *</b></p> <p><input type="radio"/> Male</p> <p><input type="radio"/> Female</p> <p><b>Faculty *</b></p> <p><input type="radio"/> Economics</p> <p><input type="radio"/> Construction</p> <p><input type="radio"/> Geological prospecting</p> <p><input type="radio"/> Mining</p> <p><input type="radio"/> Oil and Gas</p> <p><input type="radio"/> Energy and Mechanics</p> <p><input type="radio"/> Chemistry and Metallurgy</p> <p><b>Specialty *</b></p> <p>Your answer _____</p>	<p><b>Do you have children? *</b></p> <p><input type="radio"/> Yes</p> <p><input type="radio"/> No</p> <p><b>What are your salary expectations? *</b></p> <p><input type="radio"/> 50 000 - 100 000 rubles</p> <p><input type="radio"/> 101 000 - 150 000 rubles</p> <p><input type="radio"/> 151 000 - 200 000 rubles</p> <p><input type="radio"/> &gt; 200 000 rubles</p> <p><b>What are the main incentives to work in Arctic region? *</b></p> <p><input type="checkbox"/> Higher salary</p> <p><input type="checkbox"/> Receive an apartment from the public housing stock in 15 years</p> <p><input type="checkbox"/> Development of infrastructure in the Arctic region</p> <p><input type="checkbox"/> Specific retirement procedure and extraordinary pension</p> <p><input type="checkbox"/> Full coverage in terms of health</p>
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Fig.1: Fragment of the questionnaire for potential employees in the Arctic Region

A total of 102 respondents took the poll, including 42 male and 60 female respondents. A total of 43.1% of the respondents are from the Economic Department, 18.6%, 16.7%, and 9.8% of the respondents represent the Construction Department, Electromechanical Department, Oil and Gas Department, respectively, and 3.9% of student are from the Geological Survey, Mining, and Mineral Processing Departments each. Three respondents are married and one respondent has children.

The survey has shown that 35% of the respondents are willing to work for RUB 101,000 to RUB 150,000, 33% of the respondents would like to be paid RUB 151,000 to RUB 200,000, and 23% of the respondents expect a salary of RUB 200,000 for their work in the Arctic Region. A mere 9% of the respondents will be satisfied with a wage between RUB 50,000 and RUB 100,000 (Fig. 2).

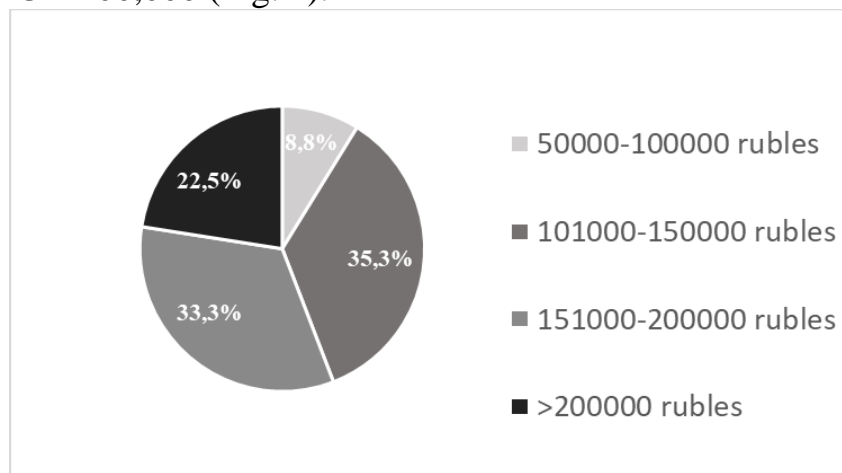


Fig. 2: Salary preferences of potential employees

The main incentives for potential employees in the Arctic Region are financial ones, including a salary higher than their current wage (76%), opportunity to receive a flat from the government they can beneficially own in 15 years (47%), and complete medical services coverage (46%). However the above options will not motivate 10% of the respondents to work in the Arctic Region.

As regards cultural and entertainment options, the most important preferences include availability of restaurants and coffee shops (81%), access to theatres and cinemas (73%), access to recreation parks in the region where the respondents live (55%).

More than half of the respondents are ready to set off to work in the Arctic region for no longer than five years. A total of 22 potential employees agree to work in the Arctic Region for five to ten years, while three respondents agree to work there for more than 15 years (Fig. 3).

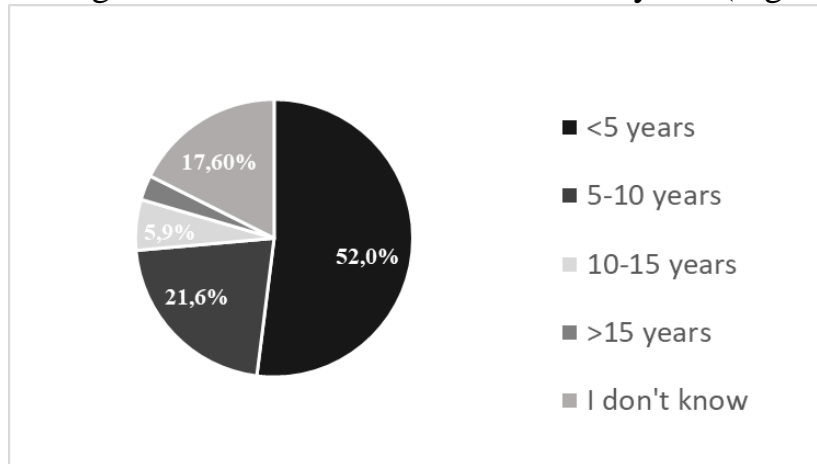


Fig. 3: Willingness to work in the Arctic Region by duration of work

49% of responding students believe that railway and air accessibility is an essential condition for work in the Arctic Region. It means that even with an employer paying for their travel to/from their vacation by law, available and affordable tickets are an important factor for the mobility of potential employees in the Arctic.

Respondents have also been offered an opportunity to add incentives that will encourage them to choose a job in the Arctic Region. The survey has yielded such responses as guaranteed employment in St. Petersburg or Moscow with a good salary after five years spent in the Arctic and comfortable and decent living conditions in the region with the possibility of moving there with their family.

It must be added that the survey has been a trial one and further significant updates of the questionnaire are required and the number of respondents must be increased.

The opinion survey shows that young skilled people are mostly willing to work in the Arctic Region for up to five years for a monthly wage from RUB 100,000 provided there are cultural and entertainment

sites in the region and they can receive significant bonuses after their Arctic employment and can stay mobile and connected with their family.

The review provided in Part One shows that currently none of these factors is guaranteed by the government which inevitably results in a failure of the Arctic development strategy as regards the human capital indicator in the region.

Further research conducted by the Mining University research team implies the study of more factors that influence the choice of the Arctic Region as a work location and the detailed elaboration of recommendations to government authorities.

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